

***Agrostis borealis* Hartm.**

northern bentgrass  
Poaceae (Grass Family)

**Status:** State Sensitive

**Rank:** G5S1S2

**General Description:** Adapted from Hitchcock et al. (1969): This tufted perennial is 6 to 16 in. (15 to 40 cm) tall and has smooth sheaths. The ligules end abruptly (almost as if squared off), are 1/32 to 1/8 in. (1 to 3 mm) long and more or less jagged but not fringed with conspicuous hairs along the margin. The blades are 1/32 to 1/8 in. (1 to 3 mm) broad and flat (folded). The panicle is narrow but not greatly congested, 1¼ to 4¾ in. (3 to 12 cm) long, purplish, with branches ascending to erect, and spikelet-bearing or branched to below the middle. The glumes are acute, with a keel that is slightly rough to the touch because of the presence of short, stiff hairs. The first glume is 1/8 in. (2 ½ to 3 mm) long and the second only slightly shorter. The lemma is subequal to the second glume, 1/16 to 1/8 in. (2 to 2½ mm) long, and awned from midlength or just below. The awn of the lemma is mostly about 1/8 in. (3 mm) long and bent at a joint, but is sometimes 1/32 to 1/16 in. (1 to 2 mm) long and straight. The palea is less than 1/64 in. (1/4 to ½ mm) long and the rachilla is not prolonged. The anthers are 1/64 to 1/32 in. (1/2 to ¾ mm) long, while the lodicules are about 1/64 in. (1/2 mm) long.

**Identification Tips:** *A. borealis* can be distinguished from *A. variabilis* by its lemmas. The lemmas of *A. borealis* are prominent and have a 1/16 to 1/8 in. (2 to 3 mm) bent awn. The lemmas of *A. variabilis* are unawned or very occasionally have a weak, straight awn. Among the *Agrostis* that occur above timberline, including *A. humilis* and *A. idahoensis*, *A. borealis* is the only one with an awned lemma. A hand lens or microscope and technical key are needed for positive identification.

**Phenology:** Flowering occurs from July to August.

**Range:** This taxon is found from Alaska to Newfoundland, and has been observed from the southern to the northeastern United States, in the higher Appalachians to North Carolina, and in the Rocky Mountains in Colorado and Utah. *A. borealis* has also been seen in British Columbia, Quebec, Greenland, Scandinavia, Russia, and the Kamchatka Peninsula in northern Japan. This species is peripheral in Okanogan County, Washington.

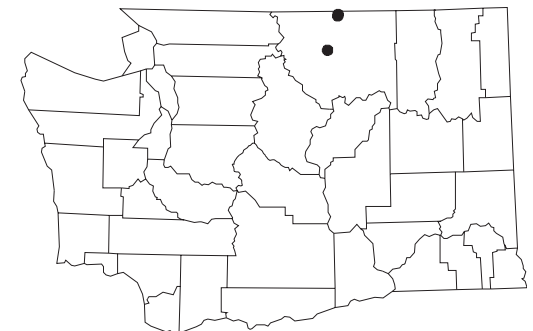
***Agrostis borealis***

northern bentgrass



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Known distribution of  
*Agrostis borealis*  
in Washington



● Current (1980+)  
○ Historic (older than 1980)

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**Habitat:** *A. borealis* grows in moist areas of arctic-alpine ecosystems. In Washington, it has been found on alpine talus slopes. Common associates include white dryas (*Dryas octopetala*) and cascade willow (*Salix cascadiensis*). This taxon is generally seen between 8,000 and 10,000 ft (2438 to 3048 m). In Washington, this species has been found at an elevation of 7200 to 7650 ft (2195 to 2332 m).

**Ecology:** This species inhabits moist meadows and slopes near or above the timberline.

**State Status Comments:** There are three recent occurrences in Okanogan County. The documentation of this species' distribution in Washington is limited and outdated. Additional inventory is needed to assess the status of the species in the state.

**Inventory Needs:** Talus slopes in Okanogan County should be systematically surveyed for additional populations. Documented occurrences should be re-visited.

**Threats and Management Concerns:** Definite threats have not been identified for this species. However, the small range of this taxon in Washington and the small number of known occurrences are major concerns. Any disturbance to the immediate habitat, such as grazing, development, and recreational activities, may constitute a threat.

**Comments:** Currently, *A. borealis* is considered a synonym of *A. mertensii* (USDA 2002).

**References:**

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle, WA. 914 pp.

USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA